

SELECTING PHYSICAL CYLINDERS IN A DISC DRIVE EMPLOYING DISCS WITH PRE-WRITTEN SERVO PATTERNS

ABSTRACT OF THE DISCLOSURE

5 An apparatus and method for selecting physical cylinders (cylinders accessible for read/write operations) in a disc drive is provided. The disc drive includes at least one rotatable disc. The disc drive also includes a first head, which is positionable adjacent a first disc surface, and a second head, which is positionable adjacent a second disc surface. The first disc surface has a first
10 plurality of greyscale tracks and the second disc surface has a second plurality of greyscale tracks. Each greyscale track of the second plurality of greyscale tracks corresponds to a different greyscale track of the first plurality of greyscale tracks, thereby forming a plurality of greyscale cylinders, with each greyscale cylinder of the plurality of greyscale cylinders including a pair of corresponding greyscale
15 tracks. The physical cylinders are a subset (less than all) of the plurality of the greyscale cylinders. The method of selecting the physical cylinders includes determining whether the first plurality of greyscale tracks or the second plurality of greyscale tracks demonstrates greater track eccentricity, to thereby obtain a maximum track eccentricity surface and a corresponding maximum eccentricity
20 head. The maximum track eccentricity surface is one of the first and second disc surfaces and the maximum eccentricity head is a corresponding one of the first and second heads. The maximum eccentricity head is used to locate at least one of the physical cylinders.